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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,702	10/31/2003	Charles L. Branch	4002-3442	1925

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EXAMINER

PHILOGENE, PEDRO

ART UNIT PAPER NUMBER

3733

DATE MAILED: 09/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/698,702

**Applicant(s)**

BRANCH ET AL.

**Examiner**

Pedro Philogene

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 63-216 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 63-216 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/22/04</u> . | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 63-216 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bianchi et al. (6,033,438) in view of Paul et al. (6,258,125).

With respect to claims 63, 82, 105, 133, 152, 175, Bianchi et al disclose an interbody spinal implant (500) made of cortical bone or bone composite, the implant comprising a leading end (502) for insertion first into the disc space, a trailing end (501) opposite the leading end, the implant having a length along a mid –longitudinal axis of the implant from the leading end to the trailing end; opposed upper and lower portions, as best seen in FIG.6, between the leading end and the trailing end adapted to be placed within the disc space to contact and support the adjacent vertebral bodies, an interior side (18), an exterior side (20) opposite the interior side, and a maximum width there between, the maximum width of the implant being less than approximately one-half of the width of the adjacent vertebral bodies into which the implant is adapted to be inserted, the interior and exterior sides connecting the upper and lower portions and the leading and trailing ends, the leading end having a generally straight portion; as best seen in FIG.6, from side to side, the exterior side forming a corner with the generally straight portion of the leading end; as best seen in FIG.14, the interior side

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adapted to be oriented toward an interior side of another implant when inserted within the disc space; as best seen in Fig.6; the implant being manufactured from a bone ring obtained from major bone of a human having a medullary canal; as set forth in column 5, lines 47-56, the interior side of the implant including at least a portion of the medullary canal so that when the implant is placed side by side another implant having an interior side including a portion of the medullary canal a passage is formed adapted to hold bone growth promoting material for permitting for the growth of bone from vertebral body to vertebral body through the passage, as best seen in Fig.6.

It is noted that Bianchi et al did not teach of an upper and lower portions being non-arcuate along at least a portion of the length of the implant; as claimed by applicant. However, in a similar art, Paul et al evidences the use of an inter-vertebral implant with upper and lower portions being non-arcuate along at least a portion of the length of the implant to mimic the topography of the end plates.

Therefore, given the teaching of Paul et al., it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a non-arcuate upper and lower portions in the device of Bianchi et al to mimic the topography of the end plates.

With respect to claims 6481, 83-104,106-132, 134-151, 153-174, 176-216, Bianchi et al disclose all the limitations, as set forth in column 5, lines 47-67, column 6, lines 1-67; and as best seen in FIGS.1-39; and Paul et al disclose all the limitations, as set forth in column 2, lines 15-21, column 5, lines 8-23; and as best seen in FIG.9.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6,706,067	3-2004	Shimp et al.
5,522,899	6-1996	Michelson


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro Philogene whose telephone number is (571) 272-4716. The examiner can normally be reached on Monday to Friday 6:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on (571) 272 - 4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Pedro Philogene  
September 1, 2006

  
PEDRO PHILOGENE  
PRIMARY EXAMINER